#### **Field Notes**

In an effort to share some of the natural history observations made during the winter bottom trawl survey, we have requested that the Chief Scientists on each part of the cruise comment on some of the more interesting catches that were brought aboard the FRV ALBATROSS IV.

# **Dogfish Everywhere!**

The first leg of the winter survey was very interesting with regard to spiny dogfish distribution. They were captured in deeper than normal water this year. It also seemed as though some of the normal deep-water fishes such as grenadiers were less prevalent where the dogfish were. Dogfish were captured all the way down to 200 fathoms (366 meters). Although the deep water catches of dogfish were not the typical "giant dogfish tows" that we sometimes catch, they were large enough tows to fill our sorting box constantly.

## Monkfish Distribution Stable While Catches Continue to Improve

The winter bottom trawl survey provides important information about population trends of goosefish (monkfish) because of the high catch rates associated with the flat net used during the survey. The spatial distribution of goosefish during the survey was consistent with patterns observed during the previous 3-5 years. Biomass (weight) indices have gradually increased while abundance (number) indices have fluctuated without trend. This may reflect lower fishing mortality in recent years due to conservation efforts directed at rebuilding the monkfish stocks.

Juvenile Cod and Haddock More Widely Distributed, Mackerel Concentration Identified During the 2004 survey, significant numbers of juvenile Atlantic cod and haddock were encountered off Long Island and throughout Southern New England over to the Great South Channel. Although the survey usually encounters some cod south of Block Island in the vicinity of Coxes Ledge, the distribution of juvenile cod and haddock was usually widespread through this area. The survey also encountered significant concentrations of Atlantic mackerel south of Long Island and offshore of New Jersey.

### Tilefish on the Move?

Tilefish were found in the deep strata of southern New England and the southwest area of Georges Bank in several tows. This year they were further north and west than where we usually catch them. We also caught the most number of tilefish per tow during the time series of the winter survey. 79 fish weighing a total of 240 lbs were caught at station 106 with the fish ranging in size from 11-20 inches (27-52 cm).

### **Abundant Barndoor Skates**

Barndoor skate used to appear in this survey as a few individuals per occasional tow. We now routinely see this species by the basketful...this year we saw multiple baskets of them on several stations.

## Vessel Comparison Study Continued

The FRV ALBATROSS IV conducted the 2004 winter bottom trawl survey, but the FRV DELAWARE II has conducted the survey on several occasions, most recently during 2003 when the ALBATROSS IV was scheduled for an extended shipyard period. Differences between the two vessels including slight trawl rigging differences, a difference in warp diameter, differential winch speed and likely different vessel noise signatures affect catch rates between the vessels even when use the same fishing gear and survey using the same shipboard procedures.

During the 2<sup>nd</sup> leg of the winter bottom trawl survey, we continued a long term study to compare the catch rates of the FRV ALBATROSS IV and FRV DELAWARE II through side-by-side towing. Comparison studies have been ongoing since the early 1980s and have demonstrated significantly different catch rates between the vessels for some species. As these differences in catch rates are identified, adjustment factors are developed and applied to data collected using the FRV DELAWARE II to adjust catches to be comparable to those occurring when the FRV ALBATROSS IV is used.

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